

# SEMICONDUCTOR DEVICE AND ITS MANUFACTURING METHOD

Publication number: JP2005101234 (A)

Publication date: 2005-04-14

Inventor(s): NAKAMURA SHUNJI; SHIMAMUNE YOSUKE +

Applicant(s): FUJITSU LTD +

Classification:

- international: H01L21/336; H01L29/76; H01L29/78; H01L29/786;  
H01L21/02; H01L29/66; (IPC1-7): H01L21/336; H01L29/78;  
H01L29/786

- European: H01L21/336D3; H01L29/786B4B; H01L29/786B7;  
H01L29/786G2; H01L29/786S

Application number: JP20030332383 20030924

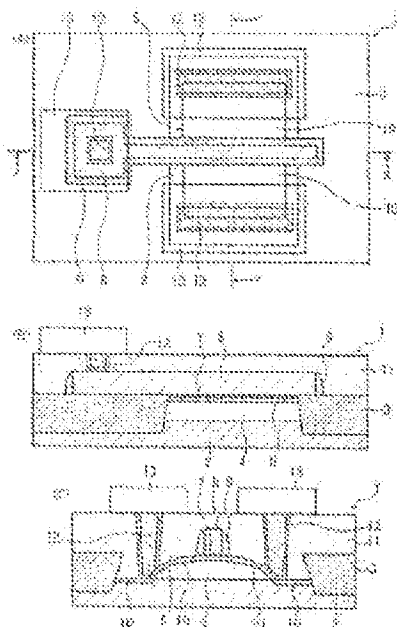
Priority number(s): JP20030332383 20030924

Also published as:

JP4004448 (B2)  
US2005062080 (A1)  
US7033868 (B2)  
US2006138541 (A1)

Abstract of JP 2005101234 (A)

PROBLEM TO BE SOLVED: To provide a semiconductor device having a transistor structure of large carrier mobility and a low parasitic capacity, and having low power consumption at a high speed. ;  
SOLUTION: A thin-film Si layer 5 with a source-drain 10 formed thereon is curved toward a region on source-drain 10 sides from a region extremely under a gate electrode 8. Accordingly, strain is generated in a channel region extremely under the gate electrode 8 held by the source-drain 10 in the Si layer 5, and the carrier mobility is improved. Parasitic capacitance caused by pn junction is reduced by following 4 a section under the curved Si layer 5. ;  
COPYRIGHT: (C)2005,JPO&NCIP



Data supplied from the *espacenet* database --- Worldwide